The Polio Eradication Initiative

Monitoring Service Delivery during National Immunization Days

Assessing the Local Capacity to Strengthen Disease Surveillance

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BASICS

BASICS
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Abstract
This report on polio eradication encourages effective monitoring and accurate disease surveillance to improve the quality of health services and disease control and eradication initiatives. The information and tools in the report evolved from actual use during National Immunization Days (NIDs) and from field assessments in several African countries. While most of the materials were developed for polio eradication, the concepts and tools also apply to routine health services. National and district Ministry of Health program managers can use the report as a reference guide to monitor and supervise their country programs. For field staff and managers, the report is a valuable reference tool for planning country activities.

The report's five sections include (1) a process that can be used to monitor services during NIDs, including a comprehensive list of indicators; (2) instructions for developing effective supervision checklists to assess the quality of performance during NIDs; (3) suggestions for an effective NIDs summary report; (4) a field-tested tool to assess local capacity and resources to improve and strengthen a'disease surveillance system; and (5) a list of all BASICS trip reports that contain information about the USAID Polio Eradication Initiative.

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Acronyms

AFP	acute flaccid paralysis
BASICS	Basic Support for Institutionalizing Child Survival
BCG	Bacillus of Calmette and Guerin
CCM	cold chain monitor
DHT	district health team
DPT	diphtheria, pertussis, and tetanus
EPI	Expanded Program on Immunization
LID	Local Immunization Day
MOH	Ministry of Health
NGO	nongovernmental organization
NID	National Immunization Day
NIS	Newly Independent States (former Soviet Union)
N N T	neonatal tetanus
OPV	oral polio vaccine
PEI	Polio Eradication Initiative
TBA	Traditional Birth Attendant
USAID	U.S. Agency for International Development
VVM	vaccine vial monitor
WHO	World Health Organization

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The material presented in this report evolved from the dedicated efforts of the Expanded Program on Immunizations (EPI) staff in several African countries. Their dedication and hard work continue to provide not only new ideas and materials for improving health programs, but they also leave a lasting impression on the BASICS staff who had the privilege of working with them. BASICS sincerely appreciates the interest, enthusiasm and valuable contributions of the EPI staff in Zambia, Kenya, Uganda, Eritrea, and Ethiopia.

Preface

The information and tools in this report evolved from actual use during National Immunization Days (NIDs) and from field assessments in several African countries. While this material documents and refers to polio eradication, the concepts and tools apply to routine health services as well.

The four chapters explain and discuss how to-

- monitor the quality of services
- design effective checklists
- develop a summary report and write an effective report
- plan a surveillance strategy using field-tested tools to assess resources

The fifth section lists BASICS trip reports that contain information about polio eradication.

Monitoring Services

The first chapter of the report, Monitoring Service Delivery during NIDs, describes a process that can be used to monitor the quality of services. While immunization coverage is a reliable indicator of performance, additional information can be collected and analyzed to determine the quality of the services provided. Collecting additional information during the NIDs not only improves monitoring and evaluation but also provides information that will lead to better decisions for planning and implementing future services. A comprehensive set of indicators, included in the section, are neither exhaustive nor intended to encourage the use of a large number of indicators. Many choices are presented to help you design a monitoring tool that fits your program's needs and capabilities.

Designing Checklists

The second chapter, Assess the Quality of Immunization Services and Social Mobilization during NIDs, explains how to design checklists that produce an in-depth review of field activities, using an analytical approach to produce concise, clear, and useful information. Supervision checklists are useful tools to assess the quality of performance. Checklists are often designed to collect a lot of information at a single location and frequently they are filed away after the health facility or immunization post visit is complete. When the information collected in the field is not used, it becomes a missed opportunity to define and analyze obstacles and strengths. The checklists presented in this technical report can be used not only for NIDs but also for supervising routine health services.

Planning the Final Report

The third chapter, Documentation Outline: A Report on National Immunization Days, presents the outline for a NID summary report that was developed by a national NID coordination team as an example of .a functional outline. Using a functional outline not only ensures that you will have the necessary information included in your report, it will also facilitate the report writing process. For a major activity like NIDs, writing the final report is usually the last activity. However, planning the final report at the same time other planning is taking place will produce an organized report and well-planned event. An outline of the content of your report can be a valuable reference tool as you plan for the activities and the desired outcomes.

Most countries have implemented NIDs, but many countries do not have enough experience with disease

surveillance to initiate effective disease control or, ultimately, to document the eradication of polio. Few African countries have an effective, sustainable national disease surveillance system. To compound the problem, little practical field-oriented resource material exists-on how to establish a reliable system. The guidelines that exist on disease surveillance tend to focus only on goals, not on how to accomplish the goals.

Planning the Assessment

The fourth chapter, Assess the Local Capacity to Improve Disease Surveillance, includes a field-tested tool that can be used to determine a district's or local community's ability and resources to strengthen their surveillance system, and to improve detection and reporting of Acute Flaccid Paralysis (AFP) and other diseases. This assessment tool, developed by a Ministry of Health (MOH) disease surveillance working group, includes information for planning a local strategy to improve disease surveillance and, ultimately, to develop a sustainable, effective national system.

Reviewing Previous Reports

The final section, BASICS Trip Reports: Polio Eradication, lists reports from 1994 through 1998 that include information about polio eradication. Copies of these reports can be obtained through the BASICS project in Arlington, Virginia.

The authors of this report want to share valuable experiences with national and district managers, not only to assist them in their efforts to eradicate polio but to help managers improve routine health services. The examples are not an endorsement of a standardized approach or the use of specific forms, but they are meant to encourage the use and analysis of information for planning and managing activities.

Chapter 1

Monitoring Service Delivery during NIDs

Introduction

Information should be collected throughout the process of planning and implementing your National Immunization Day (NID). This approach, known as *process monitoring,* will determine the effectiveness and quality of your NID, and it will reduce the cost and time required to evaluate your work. By analyzing the information collected, management can make timely decisions for improving the next round of NID and next year's NID. If management has concrete information about both the successes and problems, they can pay more attention to priority issues when they make supervisory visits and review their NID.

NIDs are a major step toward the eradication of polio. They also provide you with an opportunity to look systematically at your immunization program. The country-wide, concentrated supervision during the NID allows management to collect and update routine information, for example, the status of the cold chain. Data collected during NIDs can be used to reinforce routine program activities and determine the priorities for future program evaluations.

The spreadsheets and lists in *WHO's Field Guide for Supplementary Activities Aimed at Achieving Polio Eradication* (WHO/EPI/GEN/95.1) are useful tools for monitoring the preparations for NIDs. This guide compliments the information provided by WHO.

You can design a monitoring system from a range of suggested indicators, each presented later in this chapter. While the list of indicators pertain to NIDs, they can also apply to monitoring routine activities. Judiciously select the indicators that will provide essential information but will not overload the staff or generate unnecessary work. If you use the information and procedures in this report-routine collection, analysis, and utilization of essential information-your management will improve.

Methods for Process Monitoring

The success of your NID depends on the following critical program areas.

Determine Your Information Requirements

First, determine the information you will need to assess the effectiveness and quality of the NID, including the following:

- Planning
- Monitoring the services provided
- Vaccine supply, distribution, and quality
- Service delivery strategy
- Social mobilization

Although the information required to assess the areas will vary by country and your resources will determine how you collect the information, you should, at a minimum answer the following basic questions at the national, district, and health facility levels:

1. Was the planning adequate at all levels?

2. Are the reported data on immunization coverage reliable?

3. Were all immunizations given safely and effectively?

4. Did the NID reach all communities as planned?

5. Were people adequately informed about NIDs? How were people informed?

After answering these questions, you will be able to monitor the quality of your NID and identify areas that require extra attention during the next round or during next year's NID. The answers will help define the communities that may need future "mop up" immunization.

Techniques and Tools for Process Monitoring

Process monitoring may not always produce statistically valid data. It can, however, provide useful qualitative and quantitative information for management, which will, in turn, improve decision-making capabilities. Some techniques and tools for process monitoring are—

- Reporting, including analysis and feedback on the information collected.

- Supervising, using a standard checklist with analysis and feedback on the information collected (see attachments 2a., 2b., and 2c. in chapter 2).

- Maintaining, reviewing, and discussing minutes from planning meetings.

- Asking parents questions about NIDs during routine visits to health facilities and during the NID.

- Keeping a diary on all discussions and meetings with health workers and all other NID participants, including NGOs, government officials, the private sector, volunteers, and religious leaders.

- Keeping a diary on observations made at health facilities, outreach posts, and communities.

To be useful, your tools and techniques must allow for easy data collection, compilation, and analysis and, most important, feedback to those implementing the work.

When to Perform Process Monitoring and Who Is Involved

Process monitoring begins with planning, continues through implementation, and remains after the immunization sessions are finished. All levels-national, regional and provincial, district, and health facility-should participate in the monitoring process. Managers, supervisors, coordinators, and officers in charge must ensure that all required information is collected accurately and on time. If you analyze and discuss the information with the people who collected the information, you will be able to quickly identify problems and quickly respond. Process monitoring is an invaluable experience for planning future NIDs.

Indicators for Monitoring NIDs

After you determine the key information, identify the indicators that will provide the information you need. Standardized, practical indicators produce reliable analysis while they allow you to compare other geographical areas and next year's NID. Practical indicators should not burden field staff with excessive recording. They should be easy to compile and analyze. Select your indicators early in the planning process so they can be incorporated into training, the reporting system, and supervision. Collecting too much information will reduce the reliability and utility of your information.

> **Remember—**
>
> Only collect information that will be analyzed and discussed.

The indicators presented in this report will help you identify problems and make decisions but will not necessarily help you conduct research that requires rigorous statistical analysis. Each indicator in this report has suggested methods for collection and analysis and a list of potential advantages and disadvantages. Some indicators may not be practical or relevant for your needs. Some may be useful now, others may apply during next year's NID, and others, not listed here, may be useful for your program.

The indicators in this report are divided into categories, although some indicators may apply to more than one category. A separate category for planning is not included because the indicators on planning are mentioned in other categories. You may also refer to WHO's polio eradication guide (see page 1) for indicators on planning NIDs. An example of how to use some of these indicators in a supervision checklist is found at the end of chapter 4.

Reliability of Reporting

Indicator 1 The number of immunizations given and the reported coverage for children under 12 months of age and the reported coverage for the entire target age group, children under 5 years of age (under-5s).

Instruments: NIDs tally sheets and immunization reporting forms or summary sheets.

Analysis: Compare the NIDs oral polio vaccine (OPV) immunizations given to children under 12 months with routine reported immunization coverage for Bacillus of Calmette and Guerin (BCG); OPV1; or diphtheria, pertussis, and tetanus (DPT1). Use the estimated target population (denominator) to calculate both routine and NID coverage. If the figures show major discrepancies between routine and NID coverage figures there may be problems with the census data, the method for determining the target population denominator, the record keeping practices, and/or communication about the target age group.

Advantages: A narrow age range (under 12 months) may provide a more accurate coverage estimate than the broader under-5s group, and it will help to pinpoint age-specific low attendance. For example, if parents receive the wrong message and believe that they do not need to bring a child to the NID if the child was immunized during routine immunization services, attendance during NID for children under 12 months would be lower than expected. The usefulness of this analysis will depend on the status of the routine immunization program and the reliability of recording practices.

Disadvantages: Requires a more detailed NID reporting form, which could cause more recording errors if the staff is inadequately trained. Determining a child's age during the immunization session may overburden staff and cause delays, especially during large sessions. Information obtained by untrained persons, such as volunteers, may not be reliable.

Indicator 2 Geographical areas reporting greater than 100 percent coverage, such as districts, urban areas, or health facility catchment areas.

Instruments: Immunization reporting forms and/or summary sheets.

Analysis: Rank the areas in the order of coverage achieved. Select the areas reporting greater than 100 percent coverage, and determine the reason(s) for the unexplained coverage figures.

Advantages: Provides insight into the reliability of reporting and the accuracy of the denominator or estimated target population. Highlights the importance of accurate reporting for a future NID, as well as for routine reporting. Can also provide a plausible explanation(s) for what appears to be careless reporting, such as unreliable census data or children outside the catchment area and target age group.

Disadvantages: Determining why reported coverage is greater than 100 percent is difficult in areas with poorly identified catchment areas or areas without population data.

Indicator 3	Geographical areas reporting less than 80 percent coverage or the level set by management, such as districts, urban areas, or health facility catchment areas.
Instruments:	Immunization reporting forms and/or summary sheets.
Analysis:	Rank the areas in the order of coverage achieved; select the areas reporting less than 80 percent coverage and determine the reason(s) for the low coverage.
Advantages:	Identifies the areas that will need extra attention during future NIDs and routine immunizations programs. Provides insight into the reliability of reporting and the accuracy of the denominator or estimated target population. Can also provide a plausible explanation(s) for what appears to be low coverage, such as unreliable census data or immunizations recorded incorrectly by age group. Highlights the importance of accurate reporting, both for future NIDs and routine reporting. •
Disadvantages:	Determining why reported coverage is less than 80 percent coverage may be difficult in areas with poorly defined catchment areas.
Indicator 4	Timeliness and completeness of reporting.
Instruments:	Immunization report forms and summary sheets.
Analysis:	Calculate the percentage of facilities or delivery points reporting by a specified time period and the percentage of facilities or delivery points giving complete and correct reports.
Advantages.	Assesses the efficiency of the reporting system and reliability of reported coverage figures. Adds emphasis to the quality of routine reporting. *These indicators should be part of any reporting system.*
Indicator 5	Recording practices.
Instruments:	Diary and supervision checklist.
Analysis:	Review records of observations on recording practices. Summarize the recording errors.
Advantages:	Assesses the reliability of reported immunization coverage. Can improve future reporting and form design.
Disadvantages:	Incorrect conclusions could result if supervision is not widespread and consistent.

Vaccine Supply, Distribution, and Quality

Indicator 1 Dates OPV was received at health facilities and outreach posts.

Instruments: Supervision checklist, vaccine registers, and report forms.

Analysis: Determine the intervals between the date OPV was received and the date of the NID based on systematic observations using a checklist and/or information collected on report forms. Determine the percentage of vaccine deliveries made according to plan. Note places where vaccines may have been stored longer than the recommended time.

Advantages: Determines the length of time that OPV was in the NIDs' cold chain to pinpoint potential cold chain or logistics problems. Assesses the efficiency of the logistics system and provides information that can be used to make decisions about whether or not to use any OPV remaining after the NIDs.

Disadvantages: If the required information is not included in the immunization report form or on a supervision checklist, an additional form may be required.

Indicator 2 OPV supply at the delivery point.

Instruments: Supervisory checklist, diary, immunization reporting form, vaccine stock registers, and feedback from health workers.

Analysis: (1) Based on systematic observations using a checklist and/or diary, determine the number of facilities and outreach sites that had either ***too much*** or ***too little*** OPV. (2) Review reporting forms and determine the number of facilities and outreach sites that had either ***too much*** or ***too little*** OPV. (3) Compare doses requested with the doses received. (4) Compare doses issued with immunizations administered.

Advantages: Assesses the accuracy of planning for vaccine requirements and the efficiency of the logistics system. Prevents supplying more or less than the required vaccine during subsequent rounds. Improves future planning by documenting reasons for over- or under-supply of vaccine, such as poor planning, inaccurate population estimates, or incorrect deliveries. Will help verify cold chain storage requirements for the next round and reduce future vaccine wastage.

Disadvantages: An additional form will be required if the information about the vaccine supply is not included on the NIDs reporting form or supervision checklist.

Indicator 3 Number of immunizations given compared with the total amount of vaccine (doses) used.

Instruments: Tally sheets, report forms, vaccine registers, and supervision checklist.

Analysis: During immunization sessions, determine the number of doses given by counting the number of vials used during immunization session. Compare the number of doses used during the session with the NIDs tally sheet and/or reporting form.

Advantages: Assesses the reliability of reporting on immunizations given, as well as reporting on vaccine usage. Adds importance to the efficient use of vaccine and provides important information for planning vaccine requirements for future NIDs and routine immunization. Provides accountability and may lead to a reduction in vaccine costs.

Indicator 4 Availability of ice during transport of vaccines and immunization sessions.

Instruments: Supervision checklist, diary, immunization report form, and feedback from health workers.

Analysis: Based on systematic observations using a checklist and/or a review of immunization report forms, determine the number and percentage of facilities and outreach sites that did not have adequate supplies of ice or frozen ice packs to transport vaccine for the immunization sessions.

Advantages: Assesses the reliability of the cold chain and pinpoints potential risk areas for ineffective immunization resulting from a cold chain failure. Verifies ice and ice pack requirements for the next round and next year's NID.

Disadvantages: Incorrect conclusions may be drawn if observation is not widespread and consistent.

Indicator 5 Status and knowledge of the vaccine vial monitors (VVM).

Instruments: Supervision checklist, diary, immunization report form and feedback from health workers.

Analysis: Based on systematic observation, information collected by the immunization reporting form, and/or interviews with health workers, determine the following: (1) number of facilities and outreach sites actually using the VVM, (2) percentage of health workers who can correctly interpret the WM, and (3) number and percentage of facilities and outreach sites with VVM that indicates vaccine was spoiled by heat.

Advantages: WM accurately assess the reliability of the cold chain at the delivery point. Assessing the level of knowledge of VVM during NID provides background information about the quality of the cold chain monitoring. Checking the use of WM during supervisory visits is an opportunity to reinforce health worker's knowledge about the VVM.

Indicator 6 Availability, knowledge, and status of cold chain monitors (CCMs) in health facilities with refrigerators.

Instruments: Supervision checklist, diary, immunization report form, and feedback from health workers.

Analysis: (1) Based on systematic observation at health facilities with refrigerators with CCMs, determine the number and percentage of facilities with CCMs, suggesting a cold chain failure, and (2) conduct interviews and judge how well the health workers interpret the CCM.

Advantages: CCMs provide an accurate assessment on the reliability of the cold chain. If CCMs are checked during supervision, health workers can be reminded to monitor the cold chain.

Indicator 7 Condition and capacity of refrigerators.

Instruments: Supervision checklist, diary, equipment inventories, and report form.

Analysis: Based on systematic observation, determine the number and percentage of facilities with refrigerators out of operation, without adequate vaccine *and* ice pack storage space, and without adequate ice production capacity.

Advantages: Assesses the reliability of the cold chain and the reliability and efficiency of the cold chain maintenance system. Provides information for planning future NIDs and for routine cold chain equipment needs. *Updating information on cold chain equipment should be part of all routine supervision.*

Immunization Delivery Strategy

Indicator 1 Attendance at immunization sessions and coverage of the target population.

Instruments: Reporting form and observation using a checklist.

Analysis: Calculate immunization coverage for the smallest area possible using the health facility or outreach post catchment site, if possible. Determine why areas achieved under the expected target (for example, 80 or 90 percent, depending on your target). Review tally sheets during supervision, compare total immunizations given with the number expected (target population), and determine the number and percentage of delivery points immunizing below the expected target.

Advantages: Coverage is a primary indicator of the entire NIDs process. Coverage data at the lowest level possible, such as health facility and outreach posts, will pinpoint areas that require improvements in the delivery strategy and social mobilization.

Indicator 2 Immunization sites properly located.

Instruments: Supervision checklist and diary.

Analysis: Based on observations, determine the number and percentage of facilities and outreach sites that do not have excessive exposure to the sun and are conveniently located for mothers and health workers.

Advantages: Helps determine the reliability of the cold chain at the delivery point. Discussing immunization site location with health workers reinforces their knowledge of proper cold chain practices. Attendance at future sessions could be improved if uncomfortable waiting areas for mothers and their children are identified.

Indicator 3 Children receiving OPV during both rounds.

Instruments: Report form and tally sheets.

Analysis: Compare the total number of immunizations given during the first round with the total number given during the second round. A smaller number of children for the second round indicates a decline in interest and/or social mobilization efforts. A higher turnout for the second round could indicate improvements in the delivery strategy and/or social mobilization.

Advantages: The overall effectiveness of the annual NIDs can be judged by comparing attendance at both rounds and determining the dropout rate. To determine the ability of the community to sustain interest and participation in NIDs, compare the level of participation in the two rounds. This will reveal the effectiveness of any changes made between immunization rounds.

Disadvantages: Determining an accurate dropout rate requires a more detailed reporting format and additional screening and recording procedures. The information may not be reliable unless clear instructions are given and simple procedures are followed. Verbal histories of NID immunizations may not be reliable., If children go to different sites for different rounds, it may result in misleading information about either dropout rates or increased attendance.

Indicator 4 Mothers' travel time to the immunization site.

Instruments: Supervision checklist, questionnaire, and record of focus group discussions.

Analysis: During supervision of an immunization session, ask randomly selected mothers how long they spent traveling from home to the immunization site. Compare the travel time with the coverage achieved at various immunization sites.

Advantages: May uncover reasons for low turnout. Will also help assess the delivery strategy, plan future immunization delivery sites, and better define catchment areas.

Disadvantages: Observations from small and unsystematic sampling could result in misleading conclusions. There will be limited time during NIDs to interview mothers.

Indicator 5 Organization of the immunization session,

Instruments: Supervision checklists and record of observations.

Analysis: Compile information that describes the immunization session, such as waiting time, easily identified site, adequate staffing (MOH and volunteers), and patient flow.

Advantages: Will help organize future immunization sessions and may increase attendance by reducing inconvenience to mothers.

Disadvantages: Observations from limited and unsystematic sampling could be misleading and could limit the accuracy of the conclusions.

Indicator 6 Geographical coverage and coverage by catchment area.

Instruments: Facility records (for example, inpatient register); record of feedback from health workers and mothers; maps; and lists of villages, cities, and/or communities.

Analysis: Interview mothers and review clinic records. If available, review list of villages and/or a map of areas expected at the immunization site. Determine if geographical or catchment area coverage objective was achieved. Pay particular attention to expected children who come from hard to reach or underserved areas.

Advantages: Assesses the effectiveness of the delivery strategy by determining if all areas were reached.

Disadvantages: May not detect completely missed areas unless the initial geographical or catchment area information is complete. Observations from small and/or unsystematic sampling could result in misleading conclusions. There is limited time during NIDs to interview mothers and review records.

Social Mobilization

The following indicators, mentioned earlier, also assess the effectiveness of social mobilization:

- Immunizations by age group (Reliability of Reporting, Indicator 1).
- Attendance (children per site) and coverage (Immunization Delivery Strategy, Indicator 1).
- Children attending both rounds (Immunization Delivery Strategy, Indicator 1).
- Geographical coverage (Immunization Delivery Strategy, Indicator 6).

Following are additional indicators for monitoring social mobilization:

Indicator 1 The mother's knowledge of the vaccine given, purpose of NIDs (for example, extra doses and not a routine immunization), target age group, and dates for the next round.

Instruments: Random interviews using a supervision checklist or questionnaire and notes from focus group discussions.

Analysis: Use standardized questions and a predetermined number of random interviews, determine the number and percentage of women correctly (or incorrectly) informed about NIDs. Interviews could be conducted during supervision of routine services, during previsits for NIDs preparation, and during NIDs.

Advantages: Interviews with mothers will help assess the effectiveness of social mobilization. Their responses will provide useful information for planning social mobilization messages and activities for the next round or next year's NID. Although interpretation of this information on a local scale may be limited due to the small sample size, aggregation of many samples, such as all immunization sites in the district, may help formulate more reliable conclusions.

Disadvantages: Time and personnel for interviewing mothers will probably be limited during the NID. As mentioned before, observations based on small, unsystematic samples could be misleading.

Indicator 2 The mother's source for NIDs information.

Instruments: Random interviews using a supervision checklist or questionnaire, and/or notes on focus group discussions.

Analysis: Use standard questions and a predetermined number of random interviews to determine the source of information about NIDs (for example, media, health workers, posters, friends, community leaders, church, mosque, and others). Conduct interviews during supervision of routine services and previsits during NIDs preparation or during NIDs.

Advantages: Information from mothers can be used to determine the most effective way to communicate with communities. The information may provide ideas for planning and may improve future social mobilization messages and activities.

Disadvantages: Limited time and personnel may result in an inadequate number of mothers being interviewed.

Chapter 2

Assess the Quality of Immunization Services and Social Mobilization during NIDs

Introduction

The supervisor should use checklists during a visit. They can be a valuable monitoring tool if the information collected is summarized and analyzed. Unfortunately, most checklists are not designed to facilitate the analysis of information because they are usually developed for a single visit. As a result, they tend to be too long and, if there are several forms, the information is difficult to compile. Consequently, the supervisor often does not use the checklist after the visit. There is no opportunity to summarize the observations and problems on a wider scale or to compare observations over time.

The following three checklists were designed to monitor service delivery or social mobilization during NIDs. They approach supervision analytically, and they offer a broad perspective on the quality of services for one to five immunization sites, ten sites, or more. Using this format, a supervisor can determine a score or rate (percentage) for the various indicators. The supervisor will have an overall picture of the area and will be able to determine where improvements are needed.

The checklists, presented as Attachment 2a., 2b., and 2c., were used successfully during NIDs. In one country, however, the districts sent all the completed checklists back to the national level and, as a result, the districts could not perform their analysis. Checklists must be used and must remain at the local or district level. They are not reporting forms but are tools for monitoring and supervision.

Supervision Checklist

Attachment 2a. NID Supervision Checklist

Purpose: The NID Supervision Checklist will help improve the quality of immunization services. It can also serve as a reminder of the most important factors to check during any immunization session. After summarizing and analyzing the collected information, you will be able to better determine the problem areas and take corrective action before the next session or round.

Users: The checklist can be used by any health worker supervising immunization sessions, both district and local supervisors. This checklist should also be used by those giving the immunizations as a self-assessment to remind them of the critical factors for a safe and effective immunization session.

Instructions

Attachment 2a. NID Supervision Checklist is an example of a tool for monitoring and supervision. Following are instructions for this checklist.

Note: During your visit answer every question on the checklist.

1. Write the name of your district and the area you are supervising.

2. In the top column, write the name of the post you visited. In the next cell write the date of the visit.

3. Next to each question, in the column corresponding to the post visited—
   a. Write a plus sign (+) for a Yes answer.
   b. Write a minus sign (-) for a No answer.

4. Social Mobilization, section 4.0:
   a. Randomly select five mothers whose children have been immunized. Ask each mother the questions in this section.
   b. In the far right square, write the number of Yes answers over the total number of mothers interviewed. (For example, if 4 out of 5 mothers say *polio* for item 4.1, write **4/5**.)
   c. For the last question (4.9, add the total number of responses listed on the checklist (for example, radio, health worker, and others). If a mother names more than one source of information, write the first response only.

5. At the end of the day, add the number of Yes answers in the column marked **Total Yes** for all of the posts visited.
   a. For the Social Mobilization section (4.1 through 4.4), write the total Yes answers over the total number of mothers interviewed.
   b. For item 4.5., write the total number for each source of information.

6. For items 1.1 through 3.8, calculate the percentage of Yes answers as follows:

$$\%\text{Yes} = \frac{\text{total Yes answers}}{\text{total posts visited}} \times 100$$

7. For Social Mobilization, 4.1 through 4.4, calculate the percentage of Yes answers as follows:

$$\%\,\text{Yes} = \frac{\text{total Yes answers}}{\text{total number of mothers asked}} \times 100$$

8. For Social Mobilization, item 4.5, calculate the percentage for each source as follows:

$$\%\,\text{Yes} = \frac{\text{total for the specific source of information}}{\text{total number of mothers asked}} \times 100$$

Procedures

Analyze the information on the checklist at the district and local levels. You can also compile the information from other checklists to analyze and summarize your observations for the district or other geographical areas. You can use this checklist when you are supervising routine immunization services.

> **Remember—**
>
> Carry extra vaccine during supervisory visits. The post you visit may need vaccine.

2a. NID Supervision Checklist

District: _____

Write the name of the site visited and then record the date of the visit. Answer each question. Record (+) for **YES** and (-) for **NO**. In the right-hand columns, tally the number of (+) **YES** answers and calculate the % of answers (total) **YES** answers divided by the total sites visited.	Write the Name of the Immunization Site										Total **YES**	% **YES**
Write the date of this visit:												
1.0 Quality of Service												
1.1 Are a minimum number of staff present (health workers plus volunteers)?												
1.2 Is the site well marked?												
1.3 Is the session orderly and without overcrowding?												
1.4 Is the NID tally sheet filled in correctly?												
1.5 Is the OPV being given correctly?												
2.0 Vaccine Supply												
2.1 Is the OPV supply sufficient for this round of NIDs?												
2.2 Do health workers know the instructions for unused NID OPV?												
3.0 Cold Chain												
3.1 Is there a refrigerator at this site? (If no, go to question 3.6.)												
3.2 Is the refrigerator working?												
3.3 Is there a complete temperature record for the previous month?												
3.4 Is the current temperature in the correct range (0 to +8)?												
3.5 Is the refrigerator storage space adequate for all vaccines?												
3.6 Do the VVMs indicate that the cold chain has been maintained?												
3.7 Do the health workers know how to interpret the VVMs?												
3.8 Are there enough frozen ice packs for today's session?												
4.0 Social Mobilization: At each site, randomly select five mothers and ask each mother the following questions after her child is immunized. Record the number responding correctly over the number asked (e.g., if 4 out of 5 mothers say "polio" to question 4.1, write 4/5 in the column for the site).											Tot. + / Total	%
4.1 Which vaccine did their child receive?												
4.2 If first round, does the mother know the dates for the second round?												
4.3 Does the mother know the purpose of NIDs?												
4.4 Does the mother know that NIDs do not replace routine immunizations?												
4.5 How did the mother know to bring her child for NIDs? (Tally below.)											**Total**	%
Radio:												
Health Worker:												
Religious Leader:												
Local Leader:												
Leaflet/poster/sign board:												
Neighbor/friend/relative:												
Other:												

Remarks: _____

Name of Supervisor: _____

2b. NID Supervision Checklist Zone_____ Name of Supervisor_____ Round_____ Date_____

Use this supervision checklist for only as many service points (SP) in the Zone as is practical. If you use more than one form, calculate the "Quality of Management" (last two columns), on the last form only.

Name of Sub-Zone						Quality of Management	
Name of Service Point (SP)							
Type of Service Point (Hos; HC; HS; or; Temp Post)							
Name of Responsible Health Staff							
*Answer the questions listed below with a **YES** or **NO** in the space provided.*						Total **YES**	% **YES**
1. Are at least one health worker plus two other staff present?							
2. Is the SP easily identified by the client (known health facility or marked by flag or poster)?							
3. Is drinking water available at the site?							
4. Are the immunizations given in the shade?							
5. Is the waiting area shaded?							
6. Is the session orderly (clear flow of clients)?							
7. Are there fewer than 20 children (<5 years) waiting?							
8. Is each caretaker welcomed?							
9a. (***R1***) Does the record keeper (RK) ask the age of all the older children? **							
9b. (***R2***) Does the RK ask the age of all children and write amount of vitamin A the client should receive? **							
10. Does the record keeper ask each parent if they have seen any acute lameness in children <15 years?							
11. Is the NID tally sheet filled in correctly?							
12. Is the unopened OPV being kept between 0 and 8 °C.?							
13. Is the opened OPV kept on or in ice/ice packs?							
14. Is the inner square lighter than the outside circle on all the VVMs (make random check)?							
15. Does the worker know how to interpret the VVM?							
16. Is there enough ice/ice packs for today's session?							
17. Is the OPV supply sufficient for this round?							
18. Is the OPV being given correctly (2 drops, etc.)?							
19a. (***R1***) Is the caretaker told when to come back for the second round? **							
19b. ***(R2)*** Is the caretaker reminded to bring the eligible child for routine immunization? **							
20. Is the caretaker thanked for coming?							
Total number of **YES** answers							
Percentage (%) of **YES** answers							

** **Note**: Questions 9a and 19a are to be filled out for round 1 only—leave 9b and 19b blank for round 1: Questions 9b and 19b are to be filled out for round 2 only—leave questions 9a and 19a blank for round 2.

2c. NID Mobilization Assessment Zone_____ Name of Supervisor_____ R o u n d Date_____

Name of sub-zone: _____

Name of service point: _____

Name of responsible health staff: _____

Ask caretakers about the items listed below. In the space provided for each interviewee, enter a YES or NO under the designated service point.	Interviewees					% YES	Interviewees					% YES	Interviewees					% YES	Success of Social Mobilization	
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5		# YES	% YES
1. Did the caretaker spend less than one hour to reach the service point7																				
2. Was their travel to the point free of charge?																				
3. Do they know the target age group for the NID?																				
4. Did all the children at home (<5 years) come todav?																				
5. Did they get the service (get through the line) quickly7																				
6. Do they know what vaccine *was* given today?																				
7. Can they **explain** the result of polio? *																				
6. Did they think that the health workers/volunteers were courteous?																				
9a. (R1) *Do they know the time of **the** second round?*																				
9b. (R2) *Did their child get immunized in the first round?*																				
10. Do they know the benefit of Vitamin A? **																				
Sub-total (number of YES)						**						**						**		**
Question 11 cannot be answered with a YES or NO. For each interviewee, in the space provided, write all letters that apply.	1	2	3	4	5	—	1	2	3	4	5	—	1	2	3	4	5	—	Summary	
In addition to using the Supervfsion Checklist to assess the quality of service management, supervisors may intervfew randomly selected caretakers as they leave the service point.																				

The supervisor should find a comfortable seat for the interviewee and then explain the purpose of the interview (to learn how to **improve** the conduct c **ocial** mobilization in the future). The ca**retaker** should never be blamed or scolded. Thank the caretaker at the end of the interview.

- Answer to **#7:** Paralysis/crippling or death (write YES if one or both answers are given).
- * Answer to **110:** Necessary for good growth/development; helps a child resist diseases; **vital** for proper functioning of eyes (write YES if one or more similar answers are given).

Note: To calculate sub-totals or total percentages, divide the total number of YES answers by the total number of questions, times the total number of interviewees, times 100.

Chapter 3

Documentation Outline

A Report on National Immunization Days

Introduction

You can produce a concise, informative report if you prepare a complete outline for your final report well before the NID. You will save time, and later when you need to write the final report, the required information will be available. Your organized report can also be used to coordinate writing assignments for team reports.

The following outline was prepared by a national NID coordination team. The outline includes suggested areas for discussion on each topic. You do not need to limit your report to these suggestions or include all the suggestions in your report. Select the most appropriate content. The report will document this year's NID, and it can be a guide for planning and implementing future NIDs.

> **Remember—**
>
> A clear, concise report is more likely to be read and acted on than a lengthy report.

Executive Summary

In the executive summary, briefly summarize your most significant experiences, results, and recommendations from your NID.

Background

1. Write a short background history of the national Expanded Program on Immunizations (EPI).

2. Explain the Global Polio Eradication Initiative.
   a. List the objectives.
   b. Explain the rationale.
   c. Describe the strategies.

3. Explain the country's Polio Eradication Initiative.

For each of the headings below, describe—
a. How the particular component and/or activity of the NIDs was planned and organized.
b. The *methods* for the component and/or activity.
c. How the particular component and/or activity functioned during the NIDs:
   - What actually occurred.
   - What functioned well.
   - What didn't function well.
   - What were the results.
   - Ways to improve next year's NID. List your recommendations.

Planning and Implementation

Organization, Planning and Management

Describe the organization, planning, and management of the NIDs. Following are suggested topics:

1. What was the plan of action?
   a. Explain how the plan was implemented.
   b. List the names of the people in charge.

2. List and explain the preplanning activities.

3. Describe the NIDs committees (terms of reference, composition).

4. Explain the political commitment.

5. Describe the district-level management and organization, and the committees.

6. Describe the budgeting process: planning mechanism, guidelines developed, amount of planned funding versus the amount received, and timing on receiving funds.

7. Describe the timeline of events.

Communication and Coordination

Explain how the communication and coordination functioned in the following areas. These are suggested topics.

1. Describe how it functioned within the MOH.

2. Describe how it functioned within the districts.

3. Describe how it functioned with donors and other partners.

Cold Chain and Logistics

Describe the cold chain and the logistics used during the NID. These are suggested topics.

1. Describe the cold chain, including the storage capacity, additional equipment received, ice making, and repair work.

2. Describe the reliability of the cold chain, especially in temporary posts.

3. Describe the VVMs, results, and health workers' knowledge.

4. Describe the transport (central), including the delivery of vaccines/equipment, planning/supervision visits, and extra vehicles obtained.

5. Describe the transport (district and local), vaccine delivery, mobile work, supervision, extra vehicles obtained, and hard to reach populations.

Training

Describe the following training for central, district, local levels, and volunteers. These are suggested topics.

1. Objectives and content.

2. Methodology.

3. Numbers of trainers and participants.

4. Types of participants.

5. Duration of training.

6. Materials.

Monitoring and Supervision

Describe the following. These are suggested topics.

1. Target populations: The method for determining and the accuracy.

2. Supervision, structure, and team compositions.

3. Any data or comments from supervision reports and coordinators.

4. Tools: Tally sheets, district report form, checklists, and reports. (Include examples as appendices.)

5. Effectiveness and usefulness of tools, including modifications for next year.

Social Mobilization

Describe the following for social mobilization. These are suggested topics.

1. Strategies and process.
2. Materials, media, and message content. (Include examples as appendices.)
3. Intersectoral collaboration.
4. Political commitment.
5. Advocacy.
6. Launching ceremonies.
7. Rumors and questions that arise during NIDs.
8. Hard to reach populations.
9. Effectiveness: Which methods and materials worked best?

Immunization Delivery Strategy

Describe the following information about immunization delivery strategy. These are suggested topics.

1. Posts
   a. Were they adequate in number?
   b. Did urban and rural posts differ significantly in attendance and staffing needs?
   c. Was the staffing adequate?
2. Number of days per round and between rounds.
3. Hard to reach populations and insecure areas.
4. Refugee camps.
5. Border areas: Were the children from neighboring countries immunized?

Results

Present most of this section in tables and graphs, with some comments.

1. Coverage: Immunizations by district and by round.
2. Vaccine: Distribution, excess, and wastage by district and by round.

3. Service statistics: Posts, health workers, volunteers, and vehicles by district.

Resources

It is important that all of the resources used for the NID are well documented to enable you to plan for next year's NID and to give everyone who contributed some recognition.

1. ***Summary*** of expenditures: MOH, districts, donor.

2. External contributions: In kind or cash (for example, Rotary Club, businesses, local leaders, religious organizations, and NGOs).

Effects on Routine Services

Briefly describe the observed and/or anticipated effects, both positive and negative, from this year's NIDs, including the effect on the following:

1. Capacity building for central and district management.

2. Routine central and district management responsibilities.

3. Interest in EPI by MOH, donors, and communities.

4. Cold chain: National assessment, repairs, and introduced VVMs.

5. Maintenance costs for new cold chain equipment acquired for NIDs.

6. Routine coverage for all antigens.

Note: Answering question 6 requires that you monitor coverage and other diseases for an extended period after the NID.

7. Health workers' morale.

8. Future personnel costs (for example, allowances) for routine and future NIDs.

9. Monitoring and supervision.

10. Future funding from the MOH and donors.

11. Routine EPI or other MOH budgets.

12. Awareness or control of other diseases, such as measles and NNT.

13. EPI working relationships with districts and other health services.

Closing Remarks

Briefly comment on the team's overall impression of the NID experience. Provide any useful suggestions for planning and implementing next year's NID.

Acknowledgments

Give recognition to all who contributed to the NID, from high level officials to the communities.

Chapter 4

Assess the Local Capacity to Improve Disease Surveillance

Introduction

In Africa, most children with a vaccine-preventable disease never reach a health facility. Mothers might prefer to seek more accessible service-local drug vendors or a traditional healer. Some mothers believe that childhood diseases like measles are natural and, therefore, do not require medical attention. The under-reporting of disease is especially true for polio and extremely rare events or syndromes like acute flaccid paralysis (AFP). In rural areas where neonatal tetanus (NNT) is prevalent, few health facilities ever see a baby with NNT. Even in countries with sophisticated electronic surveillance and communications systems, the diseases that public health disease surveillance systems report is often described as "only the tip of the iceberg."[1]

Although most immunization programs are moving toward decentralization, which emphasizes district management, disease surveillance in many countries is still a central-level function. Many programs strengthen disease surveillance only by teaching district health staff the principles of surveillance and follow-up procedures, particularly for AFP. Most programs develop thorough plans and budgets at the central level, but few district health management teams plan how to improve and finance their surveillance systems. At best, district health plans acknowledge disease surveillance as a line item in their budget.

How the cases will be actively detected receives less attention, even though it is the fundamental element for any surveillance system and an essential component for eradication. In addition to inadequate planning, few district health care systems have the infrastructure to guarantee that all cases will be reported Health workers also have many other responsibilities, and they do not have time to conduct active disease surveillance.

Case detection, or the sensitivity of a surveillance system can be greatly improved and made more efficient without significantly increasing cost or staff time. Discovering the district and community mechanism's and resources that can support health facilities to detect and report cases will strengthen surveillance without creating another "system." Traditional healers, traditional birth attendants (TBAs),

private vendors, religious organizations, nongovernmental agencies (NGOs), and local government officials

[1] The "iceberg" analogy for the incompleteness of surveillance data has been described in one African country as the forehead and ears of a hippopotamus swimming in a lake.

can be used to extend case detection beyond the health facility and into the communities.

By coordinating work with other programs, you can expand and improve communication channels for reporting and feedback, and reduce the costs for maintaining surveillance. Untapped resources remain only because no one looks for them.

The following checklist, developed by a national working group of EPI and laboratory staff, can strengthen the country's disease surveillance system. During district visits, the working group uses the checklist to assist districts as they think about and plan their disease surveillance system. The checklist is a guide to the potential resources, and it provides information for the planning process. Although the working group's guide focuses on vaccine-preventable diseases and AFP, looking for opportunities within the district to strengthen health services also applies to other diseases and public health problems. After the district health team determines their capabilities and resources, they can plan and budget their surveillance system and response strategies. Thorough and reliable surveillance at the district and local levels ultimately leads to an effective national system.

Checklist

District Assessment for Improving Disease Surveillance

The purpose of this visit is to initiate a planning process that will, in time, improve the collection, analysis, interpretation, and use of data.

Instructions

1. Explain the purpose of the visit.
2. Describe the Expanded Program on Immunization (EPI) goals: coverage, disease control, eradication, and elimination.
3. Explain the required level of surveillance; for example, eradicating polio means that the district must be able to detect and follow up on every suspected case of polio or acute flaccid paralysis (AFP).

In a district with a population of 250,000, to prove that you have eradicated polio, you must be able to *detect, investigate,* and *document* a minimum of two or three AFP cases per year.

Visit Objectives

1. To study the levels of current information flow system(s) in the district.

2. To assess resources available at the district for—
   a. Personnel
   b. Funding
   c. Tools, equipment, and supplies

3. To define an appropriate structure for information flow in the district to—
   a. Either initiate or strengthen the existing one.
   b. Look for ways to sustain, monitor and supervise the system; and identify the strengths, weakness, and gaps of the system and find possible solutions

4. To receive district input for the development of an outline on a district surveillance plan.

5. To determine the best strategies for implementation of disease surveillance at local areas, and district and community levels.

6. To identify potential resources and sources of surveillance information within the district.

7. To describe district actions when there are EPI disease outbreaks.

District Information Flow

1. What type of information is collected by the District Health Team (DHT) (for example, service delivery, immunization coverage, and diseases)?
2. Describe how the information flows from health unit to district and central levels.
   a. Is the information flow adequate?
   b. If not, suggest ways to improve the flow of information.
   c. What are the major problems?
   d. How would you correct the problems?

3. Is the information used at different levels?
   a. If yes, what information is used at which level?
   b. Who uses the information and how is it used?
   c. Is the information used for planning?

4. Is one person in the district responsible for management of the information?
   a. If yes, name the person?
   b. Describe the type of training this person had and when the training took place?

5. Has the district received any type of training for data collection, analysis, and use?

   DHT _____

   Health facility _____

   Community _____

6. What are the major problems with reporting and data collection, analysis, and use? How does the district handle these problems?

Case and Outbreak Detection

1. How does the DHT detect the following cases or outbreaks?

   Measles _____

   Polio/AFP _____

   Neonatal tetanus _____

2. What problems does the DHT encounter detecting cases or outbreaks? How can you overcome the problems?

   Measles _____

   Polio/AFP _____

   Neonatal tetanus _____

3. How is the health worker informed about a case in the community (for example, local councils, traditional healers, schools, or others)?

   Measles _____

   Polio/AFP _____

   Neonatal tetanus _____

4. What problems do the health workers encounter in detecting cases or outbreaks? How can they overcome the problems?

   Measles _____

   Polio/AFT _____

   Neonatal tetanus _____

Case and Outbreak Investigation

1. What action does the district take for reports of the following:

   Measles _____

   Polio/AFP _____

   Neonatal tetanus _____

2. Can you estimate the cost of an outbreak or case investigation? What is the cost?

3. Is there a district budget for outbreak and/or case investigation?

Information, Education, and Communication (IEC)

1. How are new policies and procedures communicated to the health workers in the health units?

2. How do you ensure that the health workers in the units implement new policies and procedures?

3. We are concerned that training manuals and guidelines are not being used. What do you recommend to improve the use of training materials and guidelines?

4. How do you provide feedback within the district?
   a. How is it used?
   b. What are the major problems and how can we solve them?

5. How does the health unit relate to the local development committee (for example, are they potential resources for promoting surveillance and EPI)?

Social Mobilization

1. What communication channels do you suggest to maintain interest in immunization and community surveillance, for example, NID structure?

   District level _____

   Community level _____

2. How would you mobilize the community to (1) detect an illness and take a sick child to a health unit or (2) report polio and AFP, NNT, and measles outbreaks to the surveillance system?

Training

1. What approach do you suggest to train surveillance implementers at district, subdistrict, health units, and community levels?

2. What type of training (topics, content) is needed for each level:

   District _____

   Local or subdistrict _____

   Health Unit _____

   Community _____

3. Could any training activities planned for this year incorporate topics on disease surveillance?
   a. If yes, which ones?
   b. If not, can you suggest ways to incorporate some topics on disease surveillance?

District Planning

1. Is disease surveillance included in the district plan?
   - If yes, what activities are included in the plan?

2. Is disease control included in the district plan?
   - If yes, what activities are included in the plan?

3. If surveillance is not included in your plan, what activities should be included in your plan?

4. What structures exist for improving and expanding surveillance in the district, communities, and health units (for example, other surveillance, other programs, NGOs, government, and others)?

Closing

What effects do you think improving EPI disease surveillance will have on the other district health activities?

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Note: Specify the Trip Report (TR) number, if available, when you request a copy of the BASICS trip report.